## REMARKS

Claims 1-4, 6-12, 14-20, and 22-27 are pending in the application. Claims 6-8, 14-20 and 22-27 are canceled. Claims 1 and 9 are currently amended. Claims 28-31 are new. Upon entry of the amendments, cancellations and new claims, claims 1-4, 9-12, and 28-31 will be pending. Support for the claim amendments and new claims can be found throughout the specification and in the claims as originally filed. No new matter has been added.

Amendment of the originally filed claims or cancellation of any claim should in no way be construed as an acquiescence, narrowing, or surrender of any subject matter. The amendments are being made not only to point out with particularity and to claim the present invention, but also to expedite prosecution of the present application. Applicants reserve the option to prosecute the originally filed claims further, or similar ones, in the instant or subsequently filed patent applications.

### *Objection to the Specification*

The drawings are objected to for allegedly including the reference character, "710-Fab", in Figures 3 and 4, without a reference to the character in the description. Applicant traverses the objection. Applicant points out that the reference character "710-Fab" appears on page 48, lines 24-26 of the original specification as filed. The specification recites "[i]n this example, 50 μg PV1 scFV or **710-Fab**, was administered to 2 week old female NOD mice every other day for 14 days with an additional dose at 5, 6, and 7 weeks." (Emphasis added.) The reference character "710-Fab" is a control antibody that was used in Examples 3 and 4. Figure 4 thus shows the onset of diabetes in untreated mice (control), PV1-scFv treated mice (PV1scFv), and 710-Fab treated mice (710-Fab, which is the control antibody). Applicant respectfully requests reconsideration and withdrawal of this objection.

### *Rejection under 35 U.S.C. § 102(b)*

Claims 1, 2, 6-10, 14-16, and 25-26 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Linsley et al. (U.S. Patent 5,521,288) as evidenced by Paul (Fundamental Immunology 1999, page 451). The Examiner states:

> Linsley et al. teach "the ligand for CD28, its fragments or derivatives, may be introduced in to a suitable pharmaceutical carrier in vivo, i.e., administered into a

> human subject for treatment of pathological conditions such as immune system diseases or cancer. Introduction of the ligand in vivo is expected to result in intereference with T cell/B cell interactions as a result of binding of the ligand to T cells. The prevention of normal T cell/B cell contact may result in decreased T cell activity, for example, decreased T cell proliferation." (Office Action at page 4.)

The Examiner further states:

> The inhibition of anti-CD28 and anti-B7 mAbs on the cognate Th:B interaction also proved the basis for employing the CD28Ig and B7Ig fusion proteins, and monoclonal antibodies reactive with these proteins, to treat various autoimmune disorders associated with exaggerated B cell activation such as insulin-dependent diabetes mellitus, myasthenia gravis, rheumatoid arthritis and systemic lupus erythematosus (SLE). (See Office Action at page 4-5.)

Applicant respectfully traverses the rejection.

The standard for anticipation under 35 U.S.C. § 102 is that "[a] claim is only anticipated if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131. Further, "[t]he disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation." *Elan Pharm., Inc. v. Mayo Found. for Med. Educ. & Research*, F.3d 1051, 1054 (Fed. Cir. 2003) MPEP 2121.01.

In an effort to expedite prosecution of this case, Applicant has amended claims 1 and 9 and canceled claims 6-8, 14-16 and 25-26. Independent claim 1 is now drawn to a method of treating type I diabetes in a subject comprising administering an effective amount of an antigen binding portion of an anti-CD28 antibody to the subject. Independent claim 9 is now drawn to a method of inhibiting the onset of type I diabetes in a subject comprising administering an effective amount of an antigen binding portion of an anti-CD28 antibody to the subject. Based on the amendments to the claims, Applicant addresses Linsley et al. to make clear that the presently pending claims are not enabled by this reference.

The claims of the present invention are drawn to methods of treating type I diabetes or inhibiting the onset of type I diabetes with an effective amount of an antigen binding portion of an anti-CD28 antibody. Linsley et al. merely demonstrates that an anti-CD28 antibody, namely mAB 9.3, is an inhibitor of *in vitro* immune responses dependent on the interaction of B7 and

CD28 and suggests *in vivo* applications for treating immune system diseases. Linsley et al. does not enable methods for generally treating immune system diseases, let alone methods for treating specific immune system disease such as type I diabetes. Likewise, the Paul reference does not enable the use of an anti-CD28 antibody for the treatment of immune system diseases and therefore provides no evidence of support for Linsley et al. as suggested by the Examiner. Applicant thus requests reconsideration and withdrawal of this rejection.

***Rejection under 35 U.S.C. § 102(e)***

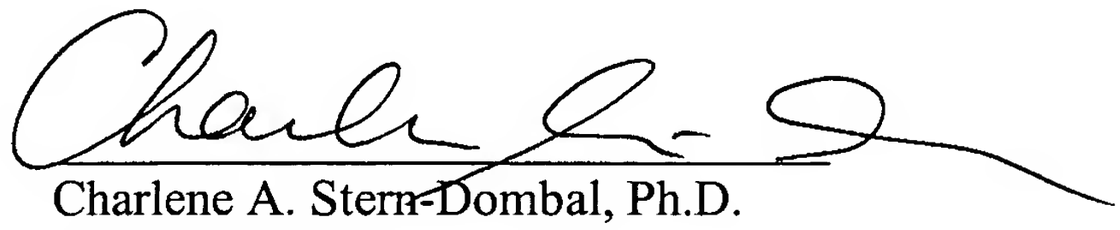
Claims 1-4, 6-12, 14-20, and 22-27 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Yu et al. (U.S. Patent Publication 2002/0006403) as evidenced by Paul (Fundamental Immunology 1999, pg. 451). The Examiner asserts that "Yu et al. teach that 'deaths of recipients treated with anti-CD28 Fab was delayed 4-5 days, as compared to those treated with control Abs.'" Applicant respectfully traverses the rejection.

As set forth above, in an effort to expedite prosecution of this case, Applicant has amended claims 1 and 9 and canceled claims 6-8, 14-20 and 22-27. The claims of the present invention are now drawn to methods of treating type I diabetes or inhibiting the onset of type I diabetes with an effective amount of an antigen binding portion of an anti-CD28 antibody. Based on the amendments to the claims, Applicant addresses Yu et al. to make clear that the presently pending claims are not enabled by this reference. In particular, Yu et al. only demonstrates that an anti-CD28 antibody prevents Graft-Versus-Host Disease (GVHD) and generally suggests that anti-CD28 antibodies may be used to treat other immune related disorders. Yu et al., however, does not enable the treatment of other immune related disorders and certainly does not enable the treatment of type I diabetes as now claimed in the present application. Similarily, the Paul reference does not enable the use of an anti-CD28 antibody for the treatment of immune related disorders, lending no support to the propositions that Yu et al. enable the same, as suggested by the Examiner. Applicant therefore requests reconsideration and withdrawal of this rejection.

## CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that the pending claims are in condition for allowance. Early and favorable reconsideration is respectfully solicited. The Examiner may address any questions raised by this submission to the undersigned at 617-832-1738. The Commissioner is authorized to charge any underpayments, or to credit any overpayment, to Deposit Account No. **06-1448, reference WYS-007.01.**

Respectfully submitted,
FOLEY HOAG



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